

EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 09052020
PUBLICATION DATE : 25-02-97

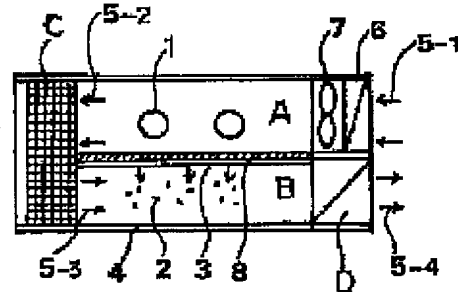
APPLICATION DATE : 18-08-95
APPLICATION NUMBER : 07232096

APPLICANT : EBARA CORP;

INVENTOR : SAKAMOTO KAZUHIKO;

INT.CL. : B01D 53/32 B01D 53/38 B01D 53/74

TITLE : METHOD AND APPARATUS FOR
HARMFUL COMPONENT REMOVAL
FROM AIR



ABSTRACT : PROBLEM TO BE SOLVED: To provide a method and an apparatus, which effectively generates photoelectrons for a long time without deteriorating a function of a photoelectron emitting material, for removal of harmful components contained in the air.

SOLUTION: In an apparatus having an ultraviolet ray source 1, a finely granulating part A to finely granulate harmful components, a charging part B to charge the fine particles by photoelectrons 2, and a collecting part D to collect the charged fine particles to remove harmful components contained in air; the ultraviolet ray source 1 radiative both ultraviolet rays with 200nm or shorter wavelength and 250nm or longer wavelength is installed in the finely granulating part A and an ozone decomposing part C in which an ozone decomposing member is set is installed while being connected with the ultraviolet ray source 1. Then, ultraviolet rays from the ultraviolet ray source 1 are irradiated to the charging part B through a photoelectron emitting material which is a short wavelength ultraviolet ray cutting filter 8 coated with a photoelectron emitting substance 3 and installed between the finely granulating part A and the charging part B for the fine particles. As the ozone decomposing material, a mixed oxide type catalyst may be used and as the ultraviolet ray cutting filter, glass which absorbs short wavelength ultraviolet rays may be used.

COPYRIGHT: (C)1997,JPO